

**Amendments to the Specification:**

Please amend the section entitled **CROSS-REFERENCE TO RELATED APPLICATION(S)** with the following amended section:

**CROSS-REFERENCE TO RELATED APPLICATION(S)**

The present application may include subject matter related to one or more of the following commonly-owned United States patent applications, each of which was filed on even date herewith and is hereby incorporated herein by reference in its entirety:

United States Patent Application No. ~~XX/XXX,XXX~~ 10/696,969 entitled SYSTEM, DEVICE, AND METHOD FOR MIXING A SUBSTANCE WITH A LIQUID (referred to herein as “Application D70”);

United States Patent Application No. ~~XX/XXX,XXX~~ 10/696,893 entitled SYSTEM, DEVICE, AND METHOD FOR MIXING LIQUIDS (referred to herein as “Application D71”);

United States Patent Application No. ~~XX/XXX,XXX~~ 10/696,818 entitled TWO-STAGE MIXING SYSTEM, APPARATUS, AND METHOD (referred to herein as “Application D72”);

United States Patent Application No. ~~XX/XXX,XXX~~ 10/696,984 entitled DOOR LOCKING MECHANISM (referred to herein as “Application D74”);

United States Patent Application No. ~~XX/XXX,XXX~~ 10/697,450 entitled BEZEL ASSEMBLY FOR PNEUMATIC CONTROL (referred to herein as “Application D75”);

United States Patent Application No. ~~XX/XXX,XXX~~ 10/697,862 entitled PUMP CASSETTE WITH SPIKING ASSEMBLY (referred to herein as “Application D84”);  
and

United States Patent Application No. ~~XX/XXX,XXX~~ 10/696,990 entitled PUMP CASSETTE BANK (referred to herein as “Application D85”).

Please replace the paragraph beginning at page 7, line 21, with the following amended paragraph:

FIG. 1 is a process flow diagram describing a process 2000 for pumping of fluid using a pump cassette, in accordance with one embodiment of the invention. Beginning in block 2002, a pump cassette is provided, which may be disposable. As described above, the pump cassette includes various pump chambers and various valves, which are preferably operated pneumatically.

Please replace the paragraph beginning at page 8, line 12, with the following amended paragraph:

FIG. 2B shows a rear view of the pump cassette 202 in accordance with an embodiment of the present invention. The rear view of the pump cassette 202 shows various “volcano” valves 324, 326, 328, 330, 332 that are used to open and close various fluid pathways within the pump cassette 202. The volcano valves and the pumping chambers are all operated pneumatically from the rear of the pump cassette 202, as discussed below.

Please replace the paragraph beginning at page 11, line 26, with the following amended paragraph:

FIG. 4A shows an exploded view of a door assembly 402 in accordance with an embodiment of the present invention. Among other things, the door assembly 402 may include a door cowl 701, a latch spring post 702, a door latch 703 (including handle 742, post 740, and projection 741), a cassette receptacle 704, a back plate 705, a latch pin 706, a bladder 707 with an attached pneumatic circuit 730, a piston assembly 711 including a piston plate 731 and a piston cover 732, double coated tape 713, a frame 708, a door pin 709, a door mounting bracket 710, a human interface board assembly 712, a miniature cable tie 714, recessed bumpers 715, E-rings 722, cable tie mount 723, torsion springs 724 and 725, extension spring 726, a cassette orientation tab 799, and various screws 716, 717, 718, 719, 720, and 721. The human interface board assembly 712 is mounted to the inside of the door cowl 701.

Please replace the paragraph beginning at page 15, line 3, with the following amended paragraph:

FIG. 4B shows a front perspective view of the door assembly 402 in accordance with an embodiment of the present invention. The human interface board assembly 712 having LEDs or other operator controls, and the handle portion of the door latch 703, are visible from the front of the door cowl 701. A portion of the cassette receptacle 704 ~~and a portion of the bladder 707~~ are also visible.

Please replace the paragraph beginning at page 15, line 9, with the following amended paragraph:

FIG. 4C shows a rear perspective view of the door assembly 402 in accordance with an embodiment of the present invention, in which the cassette receptacle 704 is in a retracted position. Visible at the rear of the door cowl 701 are the frame 708, the latch portion of the door latch 703, the cassette receptacle 704, the piston assembly 711, the door mounting bracket 710, the torsion springs 724 and 725, and a portion of the human interface board assembly 712, ~~and a portion of the bladder 707~~.

Please replace the paragraph beginning at page 15, line 16, with the following amended paragraph:

FIG. 4D shows a rear perspective view of the door assembly 402 in accordance with an embodiment of the present invention, in which the cassette receptacle 704 is in an open position. Visible at the rear of the door cowl 701 are the frame 708, the latch portion of the door latch 703, the cassette receptacle 704, the piston assembly 711, the door mounting bracket 710, the torsion springs 724 and 725, and a portion of the human interface board assembly 712, ~~and a portion of the door bladder 707~~.

Please replace the paragraph beginning at page 18, line 18, with the following amended paragraph:

FIG. 5C shows an exemplary wiring diagram for another embodiment of the blood processing system 100. The blood processing system 100 may include a printer 132 in communication with the process controller for printing out reports. The blood processing system 100 may include a card reader 134 in communication with the process controller for card-based operator identification. The blood processing system 100 may

include a wireless bar code scanner base station 138 in communication with the process controller for receiving bar code information scanned using a wireless bar code scanner 136. Bar codes are typically used to track the various solution containers and the pumps on which those containers were processed.

Please replace the paragraph beginning at page 28, line 1, with the following amended paragraph:

FIG. 10 shows a cross-sectional view of an occluder assembly 404 in accordance with an embodiment of the present invention. Among other things, the occluder includes a flat occluder spring 812 having a rear end coupled to the top housing 802 and a front end coupled to the occluder blade 814, a bladder 808 situated between the top housing 802 and the spring 812, the tube 804 coupled to the bladder 808, and an adjuster 810 for adjusting the protrusion of the occluder blade 814. When the bladder 808 is inflated, the occluder spring 812 is deflected downward at the middle so as to shorten the effective length of the occluder spring 812 and retract the occluder blade 814. When the bladder 808 is deflated, the occluder spring 812 extends flat and therefore extends the occluder blade 814. The occluder blade 814 moves within guides (not shown) that allow the spring to extend and retract the occluder blade 814.

Please replace the paragraph beginning at page 28, line 13, with the following amended paragraph:

FIG. 11 shows an exploded view of the occluder assembly 404 in accordance with an embodiment of the present invention. Among other things, the occluder assembly 404 includes enclosure top 802, enclosure bottom ~~810~~ 801, a first occluder including a flat occluder spring 811 coupled to an occluder blade 813, a shaft 821, a front bracket 819, a rear bracket 817, a bladder 809, and a tube 803, and a second occluder including an occluder blade 814, a shaft 820, a front bracket 818, a rear bracket 816, a bladder 808, and a tube 804. The rear brackets 816 and 817 are mounted to the enclosure top 802 via shaft 825, blocks 826 and 827, and clamps 828 and 829. The rear brackets 816 and 817 are held in a substantially fixed position, although the rear brackets 816 and 817 are able to rotate about the shaft 825 as needed for operation of the occluders. The front bracket

819 is mounted to the enclosure top 802 via shaft 821 and sliding blocks 823 and 824, while the front bracket 818 is mounted to the enclosure top 802 via shaft 820 and sliding blocks 822 and 823. The front brackets 818 and 819 are able to slide forward and backward along channels formed in the sliding blocks 822, 823, and 824 as needed for operation of the occluders. The occluder blades 813 and 814 can be manually retracted if necessary. The edge of the occluder blades 813 and 814 that engages the tubing are typically rounded so as not to cut or crease the tubing.